

We claim:

1. A method of generating an anti-tumor cell immune response in a mammal comprising the step of administering to said mammal a composition comprising a complex, said complex comprising:
  - a cationic molecule and an immunologically active nucleic acid sequence without an expressible cDNA insert, wherein said composition is administered in an amount effective to stimulate said anti-tumor cell immune response.
2. A method according to claim 1, wherein said immunologically active nucleic acid sequence is a bacterially derived plasmid.
3. A method according to claim 2, wherein said bacterially derived plasmid comprises CpG rich motifs.
4. A method according to claim 1, wherein said step of administering is accomplished by intra-tumoral administration or administration into a body cavity compartment containing a tumor.
5. A method according to claim 1, wherein said step of administering is chosen from aerosolization, intravenous injection, oral, intraperitoneal, intranasal, topical, and transmucosal administration.
6. A method according to claim 1, wherein said anti-tumor cell response is a systemic response.
7. A method of generating a protective anti-tumor cell immune response in a mammal comprising the step of administering to said mammal a composition comprising a complex, wherein said complex comprises a cationic molecule and an immunologically active nucleic acid sequence, wherein said complex is provided in an amount effective to stimulate said anti-tumor cell immune response, and wherein said administration is for the purpose of stimulating said protective anti-tumor cell immune response.
8. A method according to claim 7, wherein said immunologically active nucleic acid sequence is not capable of transcription or translation of a biologically active peptide in said mammal.
9. A method according to claim 7, wherein said immunologically active nucleic acid sequence is bacterially derived.

-31-

10. A method according to claim 7, wherein said immunologically active nucleic acid sequence is a plasmid.

11. A method according to claim 7, wherein said immunologically active nucleic acid sequence comprises genomic bacterial DNA.

12. A method according to claim 7, wherein said immunologically active nucleic acid sequence is a fragment.

13. A method according to claim 7, wherein said immunologically active nucleic acid sequence comprises CpG rich motifs.

14. A method according to claim 7, wherein said step of administering is accomplished by intra-tumoral administration or administration into a body cavity compartment containing a tumor.

15. A method according to claim 7, wherein said step of administering is chosen from aerosolization, intravenous injection, oral, intraperitoneal, intranasal, topical, and transmucosal administration.

16. A method according to claim 7, wherein said protective anti-tumor cell response is a systemic response.

17. A method of increasing the efficacy of a tumor antigen comprising the administration of an adjuvant, wherein said adjuvant comprises

a cationic molecule:immunologically active nucleic acid sequence complex wherein said immunologically active nucleic acid sequence is without an expressible cDNA insert.

18. A composition for generating a protective anti-tumor cell immune response in a mammal comprising:

a cationic molecule; and

a immunologically active nucleic acid sequence without an expressible cDNA insert.

19. A composition according to claim 18 wherein said cationic molecule is:

